What is claimed is:

1. An axis determination apparatus for determining a center axis line of a surface of a circular substrate, comprising

a support mount for supporting said substrate placed on a surface thereof,

a drive mechanism for rotating said support mount in a plane containing the surface of said support mount,

a light-emitting device disposed near a circumferential portion of said support mount, and

a light-receiving device disposed, opposite to said light-emitting device, near the circumferential portion of said support mount,

said light-emitting device emitting a beam of light to said light-receiving device.

2. The axis determination apparatus according to claim 1, wherein

said light-receiving device is disposed so as to receive the beam of light emitted by said light-emitting device through a notch provided on the circumferential portion of said substrate when the notch stays between said light-emitting device and said light-receiving device.

3. An axis determination apparatus for determining a

center axis line of a surface of a circular substrate, comprising

a support mount for supporting said substrate placed on a surface thereof,

a lifter, formed generally in a shape of a cube, including a support member arranged on a circumference with a center of said support mount and a projected member projected towards said center under said support member, for supporting said substrate with a circumferential portion of said substrate sitting on said projected member, and

a lifting mechanism for hoisting and lowering said lifter near said support mount, wherein

an inclined surface sloped towards said projected member is provided on said support member, and

said lifter transfers said substrate onto the surface of said support mount when said lifter lowered below said support mount while supporting said substrate.

4. The axis determination apparatus according to claim 1, wherein said substrate is clamped against said support mount.

5. A film-thickness measurement apparatus comprising an axis determination apparatus for determining a

center axis line of a surface of a circular substrate and a measurement apparatus for measuring a thickness of an electrically conductive thin film formed on the surface of said substrate, wherein

said axis determination apparatus includes

a support mount for supporting said substrate placed on a surface thereof,

a drive mechanism for rotating said support mount in a plane containing the surface of said support mount,

a light-emitting device disposed near a circumferential portion of said support mount, and

a light-receiving device disposed, opposite to said light-emitting device, near the circumferential portion of said support mount, said light-emitting device being designed to emit a beam of light to said light-receiving device, and

said measurement apparatus determines a measurement position on the surface of said substrate to measure the thickness of said electrically conductive thin film at said measurement position in accordance with said center axis line determined by said axis determination apparatus.

6. The film-thickness measurement apparatus according to claim 5, wherein

said measurement apparatus comprises a film-thickness sensor, a power source, and a measurement device,

said film-thickness sensor including a measurement coil,

said power source applying an AC voltage to said measurement coil when said substrate is in close proximity to said measurement coil to generate an eddy current in the electrically conductive thin film on the surface of said substrate,

said measurement device being designed to measure a signal generated in said measurement coil by an effect of said eddy current.

7. The film-thickness measurement apparatus according to claim 6, wherein

said film-thickness sensor comprises a reference coil and two reference resistors,

said reference coil being connected in series to said measurement coil and arranged to stay farther away from said substrate than said measurement coil when said measurement coil faces said substrate,

said two reference resistors being connected in series to each other, the serially-connected circuit of said two reference resistors being connected in parallel to the serially-connected circuit of said measurement coil and

said reference coil,

said measurement device being designed to measure the potential difference between the connection of said measurement coil and said reference coil and the connection of said two reference resistors as a signal generated in said measurement coil when an AC voltage is applied both end of the serially-connected circuit of said measurement coil and said reference coil.

8. A deposition apparatus comprising

deposition means for depositing a thin film on a surface of a circular substrate, and

a film-thickness measurement apparatus for measuring a thickness of the thin film on the surface of said substrate, wherein

said film-thickness measurement apparatus includes

an axis determination apparatus for determining a center axis line of the surface of the circular substrate, and

a measurement apparatus for measuring the thickness of an electrically conductive thin film formed on the surface of said substrate, wherein

said axis determination apparatus includes

a support mount for supporting said substrate placed on a surface thereof,

a drive mechanism for rotating said support

mount in a plane containing the surface of said support mount,

a light-emitting device disposed near a circumferential portion of said support mount, and

a light-receiving device disposed, opposite to said light-emitting device, near the circumferential portion of said support mount, said light-emitting device being designed to emit a beam of light to said light-receiving device, and

said measurement apparatus determines a measurement position on the surface of said substrate to measure the thickness of said electrically conductive thin film at said measurement position in accordance with said center axis line determined by said axis determination apparatus.

9. An axis determination method for determining a center axis line of a surface of a circular substrate having a notch on part of a circumferential portion of said substrate comprising the steps of:

determining a center of the surface of said substrate,

irradiating the circumferential portion of said substrate with a beam of light emitted from a light-emitting device, while rotating said substrate in a plane containing the surface of said substrate with the center of the surface to interpose the circumferential portion of

said substrate between said light-emitting device disposed opposite to a light-receiving device, in order to detect the position of said notch depending on whether or not said beam of light passes through said notch to be received by said light-receiving device, and

determining the center axis line of the surface of said substrate in accordance with the position of said notch and the center of the surface.

10. A film-thickness measurement method for measuring a thickness of a film, comprising the steps of:

determining a center of a surface of a circular substrate having a notch formed on part of a circumferential portion of said substrate and having an electrically conductive thin film deposited on the surface,

irradiating the circumferential portion of said substrate with a beam of light emitted from a light-emitting device, while rotating said substrate in a plane containing the surface of said substrate with the center of the surface to interpose the circumferential portion of said substrate between said light-emitting device disposed opposite to a light-receiving device, in order to detect the position of said notch depending on whether or not said beam of light passes through said notch to be received by said light-receiving device,

determining the center axis line of the surface of said substrate in accordance with the position of said notch and the center of the surface, and

determining a measurement position on the surface of said substrate in accordance with said center axis line,

measuring the thickness of said electrically conductive thin film at said measurement position.

11. The film-thickness measurement method according to claim 10, further comprising the steps of:

disposing a measurement coil in close proximity to said substrate,

applying an AC voltage to said measurement coil to generate an eddy current in the electrically conductive thin film on the surface of said substrate, and

detecting a signal produced in said measurement coil by an effect of said eddy current to determine the thickness of said electrically conductive thin film in accordance with said signal.

12. The film-thickness measurement method according to claim 11, further comprising the steps of:

preparing a Maxwell's inductance bridge by connecting a serially-connected circuit of two reference resistors in parallel to a serially-connected circuit of a measurement coil and a reference coil, said serially-connected circuit

of two reference resistors having two reference resistors connected in series to each other, said reference coil connected in series to said measurement coil being disposed at a position farther away from said substrate than said measurement coil, and

determining a variation in inductance component of said measurement coil and thereby detect a signal produced in said measurement coil by using said Maxwell's inductance bridge.